

Photo Lab II

ARMY MAP SERVICE
DEPARTMENT OF CARTOGRAPHY
Cartography Services & Inspections Division

5430

9 August 1961

MEMORANDUM FOR FILE

SUBJECT: Photographic Laboratory Requirements

1. The following workload includes servicing for both D/Cartography and Photographic Services and Information Division, D/Technical Services. The quantity of work to be processed is shown on a yearly basis. Besides workload, this summary also includes equipment, floor space, and related facilities.

2. Contact Printing

STATINTL

a. Quantity produced

- (1) Prints, D/Cartography Photo Lab,
- * (2) Prints for AMS (processed outside AMS by agency holding the film)
- (3) Prints for AMS (film sent from AMS to other agency for contact printing)

TOTAL

* It is estimated that at least half of these prints would be processed at AMS if facilities were available; the remainder would be restricted by the agency holding the film.

Declass Review by NIMA / DoD

b. Equipment Needed:

CP-18 LogEtronic printer with roll head	8
Roll paper processor	2
Cutting and collating machine	2
70 mm to 9 x 9 printing and processor	1

c. Remarks:

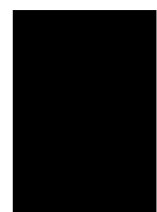
It should be noted that the requirement for 9 x 18 work will show significant increase in the future. This will make it necessary to use the CP-18 type printer and a means of automatic processing. The increased use of 70 mm film will make it necessary to provide 9 x 9 prints from such film. Such a capacity is presently available only at USNPIC.

3. Glass Plate Printing and Processing

STATINTL

a. Quantity processed:

- (1) Plates made for D/Cartography
- (2) Plates made for other agencies
- (3) Total (Annual Production)



b. Equipment Needed:

U-3 (Model A) with LogEtronic exposure control	2
U-3 (Model B) with LogEtronic Exposure control	2
U-3 (Model C) with LogEtronic exposure control	2
Distortion-free Multiplex with LogEtronic Control	3
Model CP-210 LogEtronic Contact Printers	2
Automatic processor for glass plates	1

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STATINTL

c. Remarks:

(1) Present equipment is adequate, provided it could be modified with LogEtronic exposure control facility. A continuous processor/dryer would be introduced into the system.

(2) An intimate knowledge of camera and stereoplotting instrument characteristics ^{are} is required in the preparation of photographic plates.

4. Duplication of Film and Processing

a. Quantity processed

(1) For use in D/Cartography	2,000 feet
(2) For use outside of AMS base plant	<u>100,000 feet</u>
(3) Total (Annual production)	102,000 feet

b. Equipment Needed:

HTA-2 Continuous Processor	1
Modified LogEtronic Model 10/70 Strip Printer	1

c. Remarks:

Present production is about 65% of the capacity of equipment. However, processing equipment is obsolete. A continuous film processor is needed. A modified (higher resolution) printer is needed.

5. Copy Negatives

a. Quantity produced

30,000

b. Equipment needed:

9 x 18 high speed copy camera

c. Remarks:

Our present copy camera is a "home made job" which is obsolete. It cannot be set to 1:1 scale (all copy work is at 0.95 to 1). It cannot handle the ever-growing demand for 9 x 18 work for copy negatives and for reduction prior to rectification (for photomapping). It has an obsolete light source and is extremely slow. The need for this item is pressing.

6. Rectification

a. Quantity produced 8,000 per year

b. Equipment Required:

Rectifiers, [REDACTED] EO I	3
Rectifier, [REDACTED] EO I (9 x 18)	1
Rectifier, [REDACTED] Autofocus	1

c. The present equipment satisfies operational requirements.

Quality could be improved with the introduction of an electronic dodging system. The copy camera ([REDACTED] High Speed) would greatly improve production for rectification.

7. Allied Equipment Required for Modern Photo Lab

Chemical mixing and storage system

Chemical transport system

Chemical replenishment system

Water filtration system

Water temperature control system

Air purification and dust elimination system

Film cleaning equipment

8. Space Requirements

a. Contact Printing

(1) LogEtronic Printers	300 sq ft
(2) Paper processors	200 sq ft
(3) Special printing area	100 sq ft
(4) Storage (supply)	<u>200 sq ft</u>
(5) Total	800 sq ft

b. Glass Plate

(1) Transforming Printers	500 sq ft
(2) Multiplex Printers	300 sq ft
(3) LogEtronic Printers	200 sq ft
(4) Automatic Processor	100 sq ft
(5) Inspection	200 sq ft
(6) Storage (instruments)	400 sq ft
(7) Storage (supply)	<u>400 sq ft</u>
(8) Total	2,100 sq ft

c. Film Duplication and Processing

* (1) Printing	100 sq ft
(2) Processing Continuous	100 sq ft
(3) Editing Inspection Storage	<u>300 sq ft</u>
(4) Total	500 sq ft

* Stand-by processor will be stored in room with printer.

d. Copy Negatives	100 sq ft
e. Rectification	700 sq ft

f. Other Requirements

(1) Chemical Mixing Storage, etc.	400 sq ft
(2) Print drying, sorting, collating, etc.	1,000 sq ft
(3) Office area	200 sq ft
(4) Film Storage	100 sq ft
(5) Testing, etc.	200 sq ft
(6) 70 mm to 9 x 9 printer and processor	200 sq ft
(7) Lounge (No Smoking in Lab)	300 sq ft
(8) Hallway	<u>600 sq ft</u>
(9) Total	<u>6,600 sq ft</u>

g. GRAND TOTAL 7,200 sq ft

h. This total space is equivalent to 18 bays (20' x 20') with over-all dimensions of 60' x 120'.

9. The above data has been provided primarily through the efforts of
[REDACTED] STATINTL

[REDACTED]
Chief, Photo-Control & Photography Branch